Amendments to the Claims

22. (currently amended): A semiconductor processing method comprising:

forming an antireflective material layer over a substrate;

annealing at least a portion of the antireflective material layer at a temperature of ~~at least~~ from about 550°C to about 1050°C;

forming a layer of photoresist over the annealed antireflective material layer;

patterning the layer of photoresist; and

removing a portion of the antireflective material layer unmasked by the patterned layer of photoresist.

23. (original): The method of claim 22 wherein the layer of photoresist is formed against the antireflective material layer.

24. (currently amended): A semiconductor processing method comprising:

forming an antireflective material layer over a substrate;

annealing the antireflective material layer at a temperature of ~~at least~~ from about 550°C to about 1050°C;

forming a layer of photoresist over the annealed antireflective material layer; and

exposing portions of the layer of photoresist to radiation waves, some of the radiation waves being attenuated by the antireflective material during the exposing.

25. (original): The method of claim 24 wherein the attenuation comprises absorbing radiation waves with the antireflective coating.

26. (original): The method of claim 24 wherein the layer of photoresist is formed against the antireflective material layer.

27. (original): The method of claim 24 further comprising exposing the antireflective material layer to a nitrogen-containing atmosphere during the annealing.

28. (currently amended): A semiconductor processing method comprising;

forming a solid antireflective material layer over a substrate;

altering optical properties of the antireflective material layer by annealing the antireflective material layer at a temperature ~~greater than or equal to~~ within the range of from about 550°C to about 1050°C;

after altering the optical properties, forming a layer of photoresist over the antireflective material layer; and

exposing portions of the layer of photoresist to radiation waves and absorbing some of the radiation waves with the antireflective material.

29. (original): The method of claim 28 further comprising exposing the antireflective material layer to an atmosphere during the altering, the atmosphere comprising at least one of nitrogen and argon.

30. (original): The method of claim 28 wherein the optical properties which are altered include at least one of a refractive index coefficient or an extinction coefficient.

31. (previously added): The method of claim 28 further comprising:

chemical vapor depositing the antireflective material layer onto the substrate at a temperature of from about 300°C to about 400°C; and

selectively removing either the exposed or unexposed portions of the photoresist while leaving the other of the exposed and unexposed portions over the substrate.

41. (previously added): The method of claim 22 wherein the annealing comprises annealing at a temperature of from about 800°C to about 1050°C.

42. (previously added): The method of claim 22 wherein the annealing comprises altering optical properties of the antireflective material layer.

D1 cont.

43. (previously added): The method of claim 22 wherein the antireflective material layer comprises oxygen, nitrogen and silicon.

44. (previously added): The method of claim 24 wherein the annealing comprises annealing at a temperature of from about 800°C to about 1050°C.

45. (previously added): The method of claim 24 wherein the annealing comprises altering optical properties of the antireflective material layer.

46. (previously added): The method of claim 24 wherein the antireflective material layer comprises oxygen, nitrogen and silicon.

47. (previously added): The method of claim 28 wherein the altering comprises annealing at a temperature of from about 800°C to about 1050°C.

D1 cont.

48. (previously added): The method of claim 28 wherein the antireflective material layer comprises oxygen, nitrogen and silicon.

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49. (new): A semiconductor processing method comprising:

forming an antireflective material layer over a substrate;

annealing at least a portion of the antireflective material layer at a temperature of at least 1050°C;

forming a layer of photoresist over the annealed antireflective material layer;

patterning the layer of photoresist; and

removing a portion of the antireflective material layer unmasked by the patterned layer of photoresist.

D2

50. (new): The method of claim 49 wherein the layer of photoresist is formed against the antireflective material layer.

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51. (new): A semiconductor processing method comprising:

forming an antireflective material layer over a substrate;

annealing the antireflective material layer at a temperature of at least 1050°C;

forming a layer of photoresist over the annealed antireflective material layer; and

exposing portions of the layer of photoresist to radiation waves, some of the radiation waves being attenuated by the antireflective material during the exposing.

52. (new): The method of claim 51 wherein the attenuation comprises absorbing radiation waves with the antireflective coating.

53. (new): The method of claim 51 wherein the layer of photoresist is formed against the antireflective material layer.

54. (new): The method of claim 51 further comprising exposing the antireflective material layer to a nitrogen-containing atmosphere during the annealing.

D2 cont.

55. (new): A semiconductor processing method comprising;

forming a solid antireflective material layer over a substrate;

altering optical properties of the antireflective material layer by annealing the antireflective material layer at a temperature greater than or equal to about 1050°C;

after altering the optical properties, forming a layer of photoresist over the antireflective material layer; and

exposing portions of the layer of photoresist to radiation waves and absorbing some of the radiation waves with the antireflective material.

56. (new): The method of claim 55 further comprising exposing the antireflective material layer to an atmosphere during the altering, the atmosphere comprising at least one of nitrogen and argon.

57. (new): The method of claim 55 wherein the optical properties which are altered include at least one of a refractive index coefficient or an extinction coefficient.

58. (new): The method of claim 49 wherein the annealing alters optical properties of the antireflective material layer.

59. (new): The method of claim 49 wherein the antireflective material layer comprises oxygen, nitrogen and silicon.

D2 cont.

60. (new): The method of claim 51 wherein the annealing alters optical properties of the antireflective material layer.

61. (new): The method of claim 51 wherein the antireflective material layer comprises oxygen, nitrogen and silicon.

62. (new): The method of claim 55 wherein the antireflective material layer comprises oxygen, nitrogen and silicon